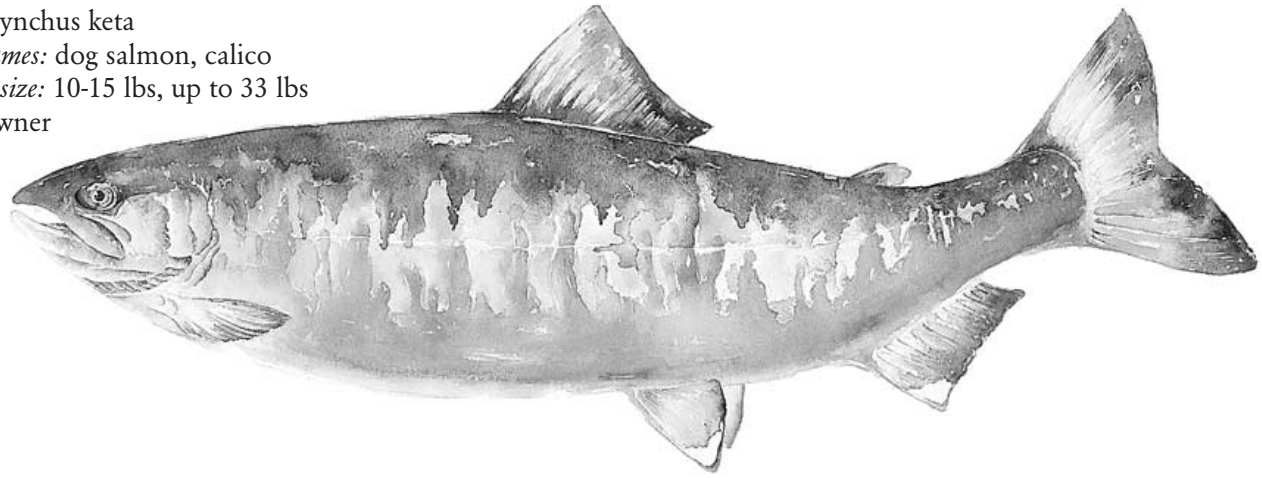
Clark County, Washington **Endangered Species Act** *Information*

Chum Salmon

Oncorhynchus keta
Other names: dog salmon, calico
Average size: 10-15 lbs, up to 33 lbs
Fall spawner



In March 1999, the National Marine Fisheries Service listed Lower Columbia Chum as threatened under the Endangered Species Act. Because Clark County is located on the Lower Columbia River, we must take measures to protect chum.

What are chum salmon?

Chum salmon have the widest natural geographic and spawning distribution of any Pacific salmonid, primarily because their range extends farther along the shores of the Arctic Ocean than other salmonids. Chum salmon may historically have been the most abundant of all salmonids. They also grow to be among the largest of Pacific salmon, second only to chinook salmon in adult size, with individuals reported up to 42 inches in length and 45 pounds in weight. Average size for the species is eight to 15 pounds. While the low fat content of chum salmon makes it the least desirable of the Pacific salmon for canning, it is preferred for smoke curing among many native peoples.

During spawning, male chum develop large canine-like "fangs" (hence the nickname dog salmon) and a strikingly colorful calico pattern, with a bold, jagged, reddish line on the front flank and chevron stripes along their sides. Females are less flamboyantly colored and lack the huge teeth of the males.

Life history

Chum salmon spend more of their adult life in marine waters than other Pacific salmonids. Chum fry do not rear in freshwater for more than a few days. Shortly after they emerge, chum fry move downstream to the estuary and rear there for several months before heading out to the open ocean. Unlike species that rear extensively in freshwater, chum salmon form schools, presumably to reduce predation.

Chum use small coastal streams and the lower reaches of larger rivers. They often use the same streams as coho, but coho tend to move further up the watershed and chum generally spawn closer to saltwater, reducing the competition for available spawning habitat. This may be due to their larger size, which requires deeper water to swim in, or their jumping ability, which is inferior to coho. Either way, the result is a watershed divided between the two species, with all the niches filled.

The number of chum salmon in southwestern Washington has declined dramatically from their once abundant historic levels.

Why are healthy runs of wild salmon declining?

As Clark County's human population has boomed, its fish population has plummeted. The relatively high numbers of returning salmon in 2000, while encouraging, should not be misinterpreted as a sign that everything is fine. Fish populations in our region have always fluctuated, but the overall trend continues downward. While natural phenomena such as flooding, predators, and ocean currents affect salmon populations,

human activity poses by far the greatest threat to salmon survival. The effects of human activity on fish populations have been many decades in the making and will take many decades to remedy. The four main areas of human activity that threaten salmon are known as the four Hs:

- **HARVEST:** Commercial and sports fishing directly reduce fish populations.
- **HATCHERIES:** Artificial production facilities produce domesticated fish that threaten the ability of wild fish to survive when they interbreed with the wild fish.
- **HYDROPOWER:** Dams block salmon migration up and down rivers and inundate fish habitat.
- **HABITAT:** Streams, rivers, estuaries, marine waters, and surrounding flood plains are being steadily degraded by human activities that increase soil erosion, reduce the amount of woody debris in streams, raise the water temperature, add contaminants to the water, decrease water flow, and create barriers to fish passage. Diminishing habitat and loss of habitat complexity increases vulnerability to predators.

For information about salmon recovery in Clark County, contact the Clark County Endangered Species Program at (360)397-2022 or www.saveoursalmon.com.

CLARK COUNTY WASHINGTON

good for FISH good for US